## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A21EA
Revision No. 19
Canadair

CL-600-1A11(CL-600)
CL-600-2A12(CL-601)
CL-600-2B16(CL-601-3A) & (CL-601-3R)
& (CL-604)
CL-600-2B19 (Regional Jet Series 100 & 440)
CL-600-2C10 (Regional Jet Series 700 & 701)
CL-600-2D24 (Regional Jet Series 900)
March 17, 2004

## TYPE CERTIFICATE DATA SHEET NO. A21EA

This data sheet which is part of Type Certificate No. A21EA, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder:

Bombardier Inc.

P.O. Box 6087, Station Centre-Ville Montreal, Quebec, Canada H3C 3G9

## I - Model CL-600-1A11 (Transport Category), Approved November 7, 1980, by the FAA and August 10, 1980, by the Canadian Department of Transport (DOT).

Engines Two AVCO Lycoming ALF-502L or ALF-502L-2

Fuel	<u>Type</u>		Specifications						
		<u>Canada</u>	<u>U.S.A.</u>	<u>U.K.</u>					
	Jet A	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494					
	Jet A-1	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494					
	Grade JP-5	-	MIL-T-5624	D. Eng RD2452					
	Grade JP-8	-	MIL-T-83133A	D. Eng RD2453					
	Jet B	CAN2-3.22-M80	ASTM D1655	D. Eng RD2486					
	JP-4	CAN2-3.22-M80	MIL-T-5624	D. Eng RD2486					
			4 44 4	0 1:					

Jet A and Jet A-1 fuels must contain an approved anti-icing additive unless Canadair Modification Summary 600-702 and Lycoming Service Bulletin ALF-502-79-0007 are incorporated.

Oil Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved Publications).

Engine Limits	SL Static	SL Static				
	Thrust(lb.)	Compr	essor RPM	Tempe	Temperature	
		LP	HP			
		<u>%N1</u>	<u>%N2</u>	<u>°C</u>	<u>°F</u>	
Takeoff (5 minutes)	7500	96.0	98.2	904	1660	
Maximum Continuous	7100	96.0	96.4	877	1610	
*Starting maximum				823	1513	

 $Maximum\ Oil\ Temperature: \quad Normal \qquad 143°C(290°F)$ 

\*\*Transient 170°C(338°F)

<sup>\*\*</sup>Permitted during power reduction. Normal temperature must be achieved within two minutes of achieving steady state operation.

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<sup>\*</sup>Time limit 10 seconds above 793°C(1460°F)

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(See NOTE 1)

		- **8* =						
Oil Pressure	Maximum Minimum	Sea Level At steady state low or high i	120 p.s.i. 30 p.s.i. idle					
APU Limits	Maximum RPM	110%						
	Maximum EGT: Starting (10 Seconds) Running		<u>°C</u> 974 731	°F 1785 1348				
Airspeed Limits (CAS)	V <sub>mo</sub> and M <sub>mo</sub> (maxim	um operating)	<u>m.p.h.</u>	Knots	Mach			
(See NOTE 1)	Sea level to 10000 ft above 10000 ft.	345 368	300 320	0.79				
	V <sub>fe</sub> (Flaps extended)	20° 30° 45°	265 226 193	230 196 168				
	$V_a$ (maneuvering) (See Flight Manual for variation of $V_a$ with altitude and aircraft weight).							
	V <sub>10</sub> (Landing gear opera V <sub>le</sub> (Landing gear exter		226 288	197 250				
C.G. Range (See NOTE 1)	Weight, lb.	Forward Limi % MAC (Sta.	)	Aft Limit <u>% MAC (Sta.)</u>				
	24000 to 31 36500 25800 24000 Straight line	wariation between	16% (+502.84 18% (+504.70  points given		28% (+513.965) 33% (+518.598) 33% (+518.598)			
Datum	_		-	l of weighi	ing datum jig point.			
Mean Aerodynami Chord (MAC)	c 92.644 in. (l	Leading edge of MA	AC from datum	at +488.0	)25 in.)			
Leveling Means	Target plate	and plumb bob bra	cket within rea	r fuselage	, at fuselage station 718.			
Maximum Weights (See NOTE 1)	Ramp Takeoff Landing Zero Fuel Minimum fl *Certain air	Takeoff Landing Zero Fuel Minimum flight weight		n increase	d weight. See AFM as in approved			
Minimum Crew	Two (Pilot a	and Co-pilot)						
Maximum Occupa	nts Twenty-one	(includes crew).						

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Fuel Capacity	2 main tanks (each) 1 center tank total	U.S. 0 732.: 751 2216		Imp. Gal. 611.3 625.8 1848.4	<u>Kg.</u> 2259.1 2316.1 6834.3	Weight, lb. 4981 5107 15069	Mom. Arm-in. (+506.5) (+457.5)	
	Usable 2 main tanks (each) 1 center tank total	725 750 2200		605 625 1835	2236 2313 6785	4930 5100 14960	(+506.5) (+457.5)	
	See NOTE 1(b) for syst	em fuel	l.					
Oil Capacity	2-engines (each) total	<u>U.S. 0</u> 3.69 7.38	<u>Gal</u>	Imp. Gal. 3.07 6.14	<u>Kg.</u> 12.88 25.76	Weight, lb. 28.4 56.8	Mom.Arm-in. (+623) (+623)	
	Usable 2-engines (each) total See NOTE 1(c) for syst	1.94 3.87 em oil.		1.61 3.22	6.76 13.52	14.9 29.8	(+623) (+623)	
	APU usable total	.408 .714		.340 .594	1.43 2.49	3.144 5.5	(+675) (+675)	
	unusable	.306		.254	1.06	2.356	(+675)	
Maximum Operating Altitude (See NOTE 1)	Take off and landin En route:	g:	4000 4100	0 ft. with Car		ted Modification 0-8330 incorpora		
Control Surface Movement	s Rudder Elevator Horizontal Stabilizer	20° (+1.0°, - 0.5°)Left 23.6°(+ or - 1.0°)Up 0°(+0.5° or -0.25°)LE Up			Jр	20° (+1.0°, - 0.5°)Right 18.4°(+ or - 1.0°)Down -9°(+ or -0.5°)LE Down		
	Aileron Flap - Inboard - Outboard Flight spoiler			0°(+3°, -0°)U		21.3°(+ or - 1.0°) Down 0° - 45° (+ or -1°) Down 0° -46.7°(+ or -1°) Down		
Serial Numbers Eligible	1002, 1004 and	subsequ	ient					
Service Information:  Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.						rt Canada approved ed by the FAA and		

## II - Model CL-600-2A12 (Transport Category), Approved March 11, 1983, by the FAA and February 25, 1983, by the Canadian Department of Transport (DOT). Engines Two General

Two General Electric CF-34-1A or \*

Fuel	<u>Type</u>	Sp	Specifications					
		Canada	U.S.A	U.K.				
	Jet A	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494				
	Jet A-1	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494				
	Grade JP-5	-	MIL-T-5624	D. Eng RD2452				
	Grade JP-8	-	MIL-T-83133A	D. Eng RD2453				
	Jet B	CAN2-3.22-M80	ASTM D1655	D. Eng RD2486				
	JP-4	CAN2-3.22-M80	MIL-T-5624	D. Eng RD2486				

Oil Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance manual (refer to Approved Publications).

Engine Limits		SL Static Thrust (lb.)	Compressor RPM		Interturbine Temp.**		
			LP <u>%N1</u>	HP <u>%N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
	Max. takeoff (APR operating) Max. takeoff (APR not operating Max. continuous Idle range Min.Idle in icing conditions	9140 8650 8920	98.6 96.2 98.6	99.4 98.2 99.2 62.9-64.0 64.0	857 842 838	1576 1548 1540	5 minutes 5 minutes
	Transient: Takeoff (APR operating) Takeoff (APR not operating) Start/relight				886 864 899 885	1627 1588 1650 1625	2 minutes 2 minutes 25 seconds 50 seconds

<sup>\*</sup> One - General Electric CF-34-3A and one CF-34-3A2 or

Service Bulletin 601-0238 "Engines use of 3A engines at 3A power settings," must be incorporated.

40 psi

#### NOTE

- Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine.
- 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above.

Oil Temperature	Maximum Permissible (15 minutes M	+163	325	
	Maximum for Single Engine Climb (	60 minutes		
	maximum)		+155	311
	Maximum continuous:		+150	302
	Minimum for starting:		- 40	- 40
Oil Pressure	Maximum Transient Cold Start: Maximum Continuous:	100 psi (Six 1 95 psi	minutes maxi	imum)
	Minimum at steady state idle:	25 psi		

at takeoff (power):

One - General Electric CF-34-1A and one CF-34-3A or

Two - General Electric CF-34-3A or

Two - General Electric CF-34-3A2

<sup>\*\*</sup> See AFM as listed in Approved Publications for CF-34-3A and CF-34-3A2 engines ITT limits.

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APU Limits	Maximum RPM		110%					
	Maximum EGT: Starting (19 Running			<u>°C</u> 974 731	° <u>I</u> 178 134	5		
Airspeed Limits	V <sub>mo</sub> and M <sub>mo</sub>	(maximum op	erating)			<u>m.p.h.</u>	Knots	Mach
(CAS)	Sea level to 10000 ft. 10000 ft. to 21420 ft. 21420 ft. to 25740 ft. 25740 ft. to 28640 ft. above 28640 ft.					345 420 - 385	300 365 - 335	- 0.79 0.835
	V <sub>fe</sub> (Flaps exte	nded)				20° 30° 45°	265 226 215	230 196 187
	V <sub>a</sub> (maneuverin (See Flight Man		tion of V <sub>2</sub>	<sub>a</sub> with alti	tude a	nd aircraf	t weight).	
	V <sub>10</sub> (Landing gear operation)						226	196
	V <sub>1e</sub> (Landing g	gear extended)	)				288	250
C.G. Range (See NOTE 1)	Weight, lb. 25000 to 42250 42250 31000 25000 Straight line va	Forward Lin <u>% MAC (St</u> 16 % (+502)    riation between	<u>ta.)</u> 848)	Aft Lim % MAC 30% (+: 35% (+: 35% (+: given.	515.81 520.45	(8) (50)		
Datum	Fuselage static	on 0, located 3	375 inche	es forward	l of we	eighing da	ıtum jig po	oint.
Mean Aerodynamic Chord (MAC)	92.644 in. (Le	ading edge of	f MAC fr	om datum	at +4	88.025 in	.)	
Leveling Means	Target plate a	nd plumb bob	bracket	within rea	ır fuse	lage, at fu	selage stat	tion 718.
Maximum Weights (See NOTE 1)	Ramp Takeoff Landing Zero Fuel Minimum flig *Certain aircr publications.		e for oper		1b.* 42250 42100 36000 29500 25000 an incre		ght. See A	AFM as in approved
Minimum Crew	Two (Pilot and	d Co-pilot)						
Maximum Occupants (See NOTE 1)	Twenty-two (	includes crew	).					

Fuel Capacity	2 main tanks (each) Fuselage Tanks Total	<u>U.S. Gal</u> 721 1012 2454	Imp. Gal 600.4 842.7 2043.4	<u>Kg.</u> 2224 3121 7569	Weight, lb. 4903 6882 16688	Mom. Arm-in. (+506.6) (+455.6)
	Usable 2 main tanks (each) Fuselage tanks Total	720 1011 2451	600 842 2042	2221 3118 7560	4896 6875 16667	(+506.6) (+455.6)
	See NOTE 1(b) for system fuel					
Oil Capacity		U.S. Gal	Imp. Gal.	Kg.	Weight, lb.	Mom. Arm- in.
	2-engines (each) Total	1.70 3.40	1.42 2.83	5.94 11.88	13.09 26.18	(+656.0) (+656.0)
	Usable 2-engines (each) Total See NOTE 1(c) for system oil.	1.38 2.75	1.14 2.29	4.80 9.60	10.59 21.18	(+656.0) (+656.0)
	APU usable Total unusable	.408 .714 .306	.340 .594 .254	1.43 2.49 1.06	3.144 5.5 2.356	(+646.0) (+646.0) (+646.0)
Maximum Operating Altitude	Take off and landing: En route:	10000 ft. 41000 ft.				
Control Surface	Rudder	25°(+1.0°, -	.5°) Left		25°(+1.0°,5°)	Right
Movements	Elevator Horizontal Stabilizer Aileron Flap - Inboard - Outboard Flight spoiler	23.6°(+ or - 0°(+0.5° or 20.8°(+ or - 0° -40°(+3°	-0.25°)LE Up 1.0°)Up		18.4°(+ or - 1.0 -9°(+ or - 0.5° 21.3°(+ or - 1.0 0° -45°(+ or - 1' 0° -46.7°(+ or -	)LE Down )°) Down °) Down
Serial Numbers Eligible	1003, 3001, and subsequent					
Service Information:	Service Bulletins, structural rep that the document is Transport ( Manufacturers Design Approva	Canada approv Il Representativ	red or Transpor we are accepted	t Canada by the F.	approved through	n the

approved. These approvals pertain to the type design only.

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# III - Model CL-600-2B16 (Transport Category), Approved April 30, 1987, by the FAA and April 21, 1987, by the Canadian Department of Transport (DOT).

Engines	(variant CL-601-3A)	Two General Electric CF-34-3A or CF-34-3A2 or
		One General Electric CF-34-3A and one CF-34-3A2
	(variant CL-601-3R)	Two General Electric CF-34-3A1 (Serial Number 5135 and subsequent) Approved
		by the FAA 15 July 1995.
	(variant CL-604)	Two General Electric CF 34-3B (Serial Number 5301 and subsequent)
		Approved by the FAA 31 May 1995.

Fuel	<u>Type</u>	Spe	cifications	
		<u>Canada</u>	<u>U.S.A.</u>	<u>U.K.</u>
	Jet A	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494
	Jet A-1	CAN2-3.23-M81	ASTM D1655	D. Eng RD2494
	Grade JP-5	-	MIL-T-5624	D. Eng RD2452
	Grade JP-8	-	MIL-T-83133A	D. Eng RD2453
	Jet B	CAN2-3.22-M80	ASTM D1655	D. Eng. RD2486
	JP-4	CAN2-3.22-M80	MIL-T-5624	D. Eng RD2486
Oil	Engine, APU,	Generator Adapter:		

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance manual (refer to Approved publications).

## CL-601 3A & 3R Variants

Engine Limits		SL Static Thrust (lb.)	Compressor RPM		Interturbine Temp.**		
			LP <u>%N1</u>	HP			
				<u>%N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
	Max. takeoff (APR operating)	9140	98.6	99.4	871	1600	5 minutes
	Max. takeoff (APR not operating)	8650	96.2	98.2	860	1580	5 minutes
	Max. continuous	8920	98.6	99.2	860	1580	
	Idle range			62.9-64.0			
	Min. Idle in icing conditions Transient:			64.0			
	Takeoff (APR operating)				900	1652	2 minutes
	Takeoff (APR not operating)				878	1612	2 minutes
	Start/relight				899	1650	25 seconds
					885	1625	50 seconds

<sup>\*\*</sup> See AFM as listed in Approved Publications for CF-34-3A and CF-34-3A2 engines ITT limits.

#### NOTE

- 1. Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine.
- 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above.

		<u>-C</u>	<u>T</u>
Oil Temperature	Maximum Permissible (15 minutes Maximum):	+163	325
	Maximum for Single Engine Climb (60 minutes		
	maximum)	+155	311
	Maximum continuous:	+150	302
	Minimum for starting:	- 40	- 40
Oil Pressure	Maximum Transient Cold Start:	100 psi (Si	ix minutes maximum)
	Maximum Continuous:	95 psi	
	Minimum at steady state idle:	25 psi	
	at takeoff (power):	40 psi	

APU Limits

Maximum RPM

110%

Art Lillius	Maximum Krivi	11070		
	Maximum EGT: Starting (10 seconds) Running		°C °I 974 17 731 13	85
CL-601 3A & 3R Variants				
Airspeed Limits (CAS)	$V_{mo}$ and $M_{mo}$ (maximum operating Sea level to 10000 ft. 10000 ft. 10000 ft. 121330 ft. 21330 ft. 225640 ft. 25640 ft. 25640 ft. to 28720 ft. above 28720 ft. $V_{fe}$ (Flaps extended) 20° 30° 45° $V_{a}$ (maneuvering) (See Flight Manual for variation of $V_{10}$ (Landing gear operation) $V_{1e}$ (Landing gear extended)	345 420 - 385 - 265 226 215	196	Mach - - 0.79 0.835
C.G. Range (See NOTE 1)	Weight, lb.         Forward Limit % MAC (Sta.)           25000 to         16% (+502.848)           42250            43250            31000            25000            Straight line variation between points	Aft Limit <u>% MAC (Sta.)</u> 30% (+515.818) 35% (+520.450) 35% (+520.450) s given.	)	
Datum	Fuselage station 0, located 375 inche	s forward of weigh	ing datum	jig point.
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge of MAC fro	om datum at +488.0	025 in.)	
Leveling Means	Target plate and plumb bob bracket v	vithin rear fuselage	e, at fusela	ge station 718.
Maximum Weights (See NOTE 1)	Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500 Minimum 25000 flight weight *Certain aircraft are eligible for oper publications. 601-3R Variant for airc			
Minimum Crew	Two (Pilot and Co-pilot)			
Maximum Occupants	Twenty-two (includes crew).			

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<b>CL-604 Variant</b> Engine Limits	CF34-3B	SL Static Thrust (lb.)	Compre LP	essor RPM HP	Intertu	ırbine Ter	mp.
	Max. takeoff (APR operating) Max. takeoff (APR not operating)	9220 8729	%N1 98.6 96.2	% <u>N2</u> 99.4 98.2	<u>°C</u> 900 884	<u>°F</u> 1650 1623	Time Limit 5 minutes 5 minutes
	Max. continuous Idle range Min. Idle in icing conditions Transient:	9140	98.6	99.2 62.9-64.0 64.0	874	1605	
	Takeoff (APR operating) Takeoff (APR not operating) Start/relight				928 900 899 885	1702 1650 1650 1625	2 minutes 2 minutes 25 seconds 50 seconds
	1. Above 40 ON for ea	000 feet, engine ch engine.	NO anti-ice bl		onditioni	ng unit m	ust be selected
		imits with APR 20°C) and above		are only app	plicable	to Outsid	e Air Temperatures
Oil Temperature	Maximum Permissible Maximum for Single I maximum)				<u>°C</u> +1	63	<u>PF</u> 325 311
	Maximum continuous Minimum for starting:				+1.	50	302 - 40
Oil Pressure	Maximum Transient C Maximu	Cold Start: Im Continuous:			115 <sub>]</sub> 95		in. maximum)
	Minimum at steady sta at takeoff				25 j 45 j		
APU Limits	Maximum RPM	11	0%				
	Maximum EGT: Starting (10 second Running	ds)		974 1	<u>°F</u> 785 348		
CL-604 Variant							
Airspeed Limits (CAS	V <sub>mo</sub> and M <sub>mo</sub> (maximur Sea level to 8000 ft.	m operating)	<u>m.p</u>	<u>Knots</u> 45 300	Mac -	<u>h</u>	

Airspeed Limits (CAS)	V <sub>mo</sub> and M <sub>mo</sub> (maximun	V <sub>mo</sub> and M <sub>mo</sub> (maximum operating)			Mach				
	Sea level to 8000 ft.		345	300	-				
	8000 ft. to 22160 ft.		400	348	-				
	22160 ft. to 26570 ft.		-	-	0.78				
	26570 ft. to 30997 ft.		366	318					
	above 30997 ft		-	-	0.85				
	V <sub>fe</sub> (Flaps extended)	20°	266	231					
		30°	227	197					
		45°	217	189					
	V <sub>a</sub> (maneuvering)								
	(See Flight Manual for va	riation of V <sub>a</sub> with	altitude and a	aircraft w	eight).				
	V <sub>10</sub> (Landing gear operat		227	197					
	V <sub>1e</sub> (Landing gear extend		288	250					

C.G. Range (See NOTE 1)	Weight, lb.		ard Limit AC (Sta.)		Aft Limit <u>% MAC (St</u>	
	26000 to 38000 39500 to 44750 47700 47700 to 43000 38000 to 26000 Straight line variation b	16%(= 20% (=	+506.553) +502.847) +506.553)  s given.		38% (+523.2 35% (+520.4	
Datum	Fuselage station 0, loca	ted 375 inches	s forward of w	eighing d	atum jig point.	
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edg	ge of MAC fro	om datum at +2	488.025 iı	1.)	
Leveling Means	Target plate and plumb	bob bracket v	vithin rear fuse	elage, at f	uselage station	718.
Maximum Weights (See NOTE 1)	Ramp Takeoff Landing Zero Fuel Minimum  *Certain aircraft are eli publications. 601-3R V					in approved
Minimum Crew Maximum Occupants	Two (Pilot and Co-pilo Twenty-two (includes o					
<b>3A variant</b> Fuel Capacity	Usable 2 main tanks (each) Fuselage tanks Total See NOTE 1(b) for syst	722 1010 2454 tem fuel.	Imp. Gal. 601 841 2043	<u>Kg.</u> 2227 3115 7569	Weight, lb. 4909 6868 16686	Mom.Arm-in. (+506.6) (+455.6)
<b>3R variant</b> Fuel Capacity	Usable 2 main tanks (each) Fuselage tanks Tailtank Total See NOTE 1(b) for syst	722 1010 187.7 2641.7 tem fuel.	601 841 156.24 2199.24	<u>Kg.</u> 2227 3115 579 8148	Weight, lb. 4909 6868 1276 17962	Mom.Arm-in. (+506.6) (+455.6) (+816.7)
<b>604 variant</b> Fuel Capacity		U.S. Gal	Imp. Gal.	<u>Kg.</u>	Weight, lb.	Mom.Arm-in.
	Usable 2 main tanks (each) Fuselage tanks Tailtank Total See NOTE 1(b) for systems	722 1062 466 2972 tem fuel.	601 885 387.9 2474.9	2227 3275 1437 9166	4909 7222 3169 20209	(+506.6) (+450.6) (+771.7)

Oil Capacity	601-3A Variant* 2-engines (each) Total	<u>U.S. Gal.</u> 1.70 3.40	Imp. Gal. 1.42 2.83	<u>Kg.</u> 5.94 11.88	Weight, lb. 13.09 26.18	Mom.Arm-in. (+653.0) (+653.0)
	Usable 2-engines (each) Total See NOTE 1(c) for system	1.38 2.75 m oil.	1.14 2.29	4.80 9.60	10.59 21.18	(+653.0) (+653.0)
	APU usable Total	.408 .714	.340 .594	1.43 2.49	3.144 5.5	(+646.0) (+646.0)
	unusable *601-3R Variant & 604 V publication.	.306 <u>Variant</u> - san	.254 ne as 601-3A, e	1.06 xcept as	2.356 listed in the AF	(+646.0) M approved
Maximum Operating Altitude	Take off and landing: En route:	10000 ft. 41000 ft.				
Control Surface Movements	Rudder	25°(+ 1°,	-0.5°)Left		25°(+ 1° or -0.5	5°) Right
	Elevator Horizontal stabilizer	23.6°(+ or 0°(+0.5° o	-1.0°) Up or -0.25°)LE Up		18.4°(+ or -1.0° -9°(+ or - 0.5°)	,
	Aileron Flap – Inboard - Outboard	20.8°(+ or	- 1°)Up		21.3°(+ or - 1°) 0° -45°(+ or - 1 0° -46.7°(+ or -	°) Down
	Flight spoiler	0° -40°(+3	5°, -0°) Up		0 10.7 (* 01	1 ) 20
Serial Numbers Eligible	5001 and subsequent					
Service Information:	Service Bulletins, structu			_		

document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These

approvals pertain to the type design only.

## IV - Model CL-600-2B19 (Transport Category), Regional Jet Series 100 Approved January 21, 1993, by the FAA and July 31, 1992, by Transport Canada.

## Model CL-600-2B19 (Transport Category), Regional Jet Series 440 Approved November 30,2001, by the FAA and October 4, 2001, by Transport Canada.

Engines Two General Electric CF-34-3A1 or

Two General Electric CF-34-3B1

Engines may be intermixed in accordance with AFM as listed in Approved Publications.

Type	Specifications					
	<u>Canada</u>	<u>U.S.A.</u>	<u>U.K.</u>	<u>Romanian</u>		
Jet A	CAN2-3.23	ASTM D1655	D. Eng RD2494			
Jet A-1	CAN2-3.23	ASTM D1655	D. Eng RD2494	STAS 5639/88 TH†		
Grade JP-5		MIL-T-5624	D. Eng RD2452			
Grade JP-8	-	MIL-T-83133A	D. Eng RD2453			
Jet B	CAN2-3.22	ASTM D1655	D. Eng RD2486			
JP-4	CAN2-3.22	MIL-T-5624	D. Eng RD2486			

†Fuel Additives Restricted to those listed in AFM (CSP-A-012) (Limitations, Fuel Additives) and/or antistatic STADIS-450 (max. 3ppm).

Engine, APU and IDG:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. \* \* Mixing of different types of oils is prohibited.

Engine Limits Conditions					
S	Fan RPM	Core RPM	ΓΙ	T	Time Limit
	$N_1\%$	$N_2\%$	°C	°F	(Min)
Max. Take - off	•	-			
(APR Operating)	98.6	99.4	900	1650	5***
			928	1702	2*
Normal Take-off	96.2	98.2	884	1623	5***
			900	1650	2*
Max. Continuous	98.6	99.2	860 (874)	1580/1605	
			(3A1/3B1)	(3A1/3B1)	
Idle Range	-	56.5 to 68.0**	-	-	-
Acceleration	-	-	900	1652	-
Starting	-	20.0	900	1652	-

<sup>\* 2</sup> minutes out of 5 total transient.

\*\* Refer to Idle Speed Limit Chart in the AFM If  $N_2$  idle RPM is more than 2% lower, do not advance thrust lever above 70%  $N_2$  until  $N_2$  idle RPM has stabilized to within normal limits.

Above 40000 feet, one air conditioning unit or cowl anti-ice must be selected on for each engine.

Oil Temperature	Maximum Permissible (1 Maximum Continuous Minimum for Starting					
Oil Pressure		Maximum Transient (after cold start)				
	Maximum Continuous			115 psi m		
	Take-off Power			45 psi m		
	Steady State Idle	. 11		25 psi m		
	* Engine must remain at	idle until oil pre	ssure returns to	normal rang	e.	
APU	GARRETT GTCP-36-15	UB I				
APU Limits	Maximum RPM:	107%				
TH O Ellines	William Ki Wi	10770				
	Maximum EGT:	<u>°C</u>	<u>°F</u>			
	Starting	<del>97</del> 4	1785*			
	Running	743	1369			
	* Not to be exceeded und	der any operating	g condition.			
			1		3.6.1	
Airspeed Limits	V <sub>mo</sub> and M <sub>mo</sub> (maximum operating)		<u>m.p.h.</u>	knots	<u>Mach</u>	
	Sea Level to 8000 ft.		380 386	330	-	
	8000 ft. to 25400 ft.			335	0.80	
	25400 ft. to 28300 ft. 28300 ft. to 31400 ft.		362	315	0.80	
	31400 ft. to 41000 ft.		-	313	0.85	
		8°	265	230	0.83	
	V <sub>fe</sub> (Flaps Extended)	8 20°	265	230	-	
		30°	203	196	-	
		45°	220	190	-	
	V <sub>a</sub> (maneuvering)	43	220	171	_	
	(See Flight Manual for variation of $V_a$	with altitude and	aircraft weight	)		
	$V_{LO}$ (Landing Gear Operation)	Willi dititude dila	288	250	*_	
	TO (		230	200	**_	
	V <sub>LE</sub> (Landing Gear Extended)		288	250	_	
	* extending , ** retracting		_00			

<sup>\*\*\*</sup> Transient limits.NOTE:

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#### C.G. Range:-

#### Max T/O 47 450 lb

#### Max T/O 51 000 lb

Weight, lb.	Forward Limit	Aft Limit	Weight, Ib.	Forward Limit	Aft Limit
	% MAC (Sta.)	% MAC (Sta.)		% MAC (Sta.)	% MAC (STA)
25480	16.5% (+510.201)	-	25480	16.5% (+510.201)	-
30000 to 34000	11.0% (504.732)	-	30000 to 34000	11.0% (+504.732)	-
36000 to 47700	9.0 % (+502.744)	-	36000 to 51250	9.0% (+502.744)	-
47700	-	-	51250	-	24% (+517.659)
47700 to 36000	-	35% (528.596)	50000 to 36000	-	35% (+528.596)
34000 to 30000	-	32% (+525.613)	34000 to 30000	-	32% (+525.613)
25480	-	27% (+520.642)	25480	-	27% (+520.642)

NOTES: 1) Effect of landing gear retraction on CG position is negligible.

2) Straight line variation between points given.

C. G. Range:-		Max T/O 53 000 lb	
	Weight, lb.	Forward Limit	Aft Limit
		% MAC (Sta.)	% MAC (Sta.)
	25480	16.5% (+510.201)	-
	30000 to 34000	11.0% (504.732)	-
	36000 to 53250	9.0 % (+502.744)	-
	53250	24.0 %	-
	53250 to 36000	-	35% (528.596)
	34000 to 30000	-	32% (+525.613)
	25480	-	27% (+520.642)

NOTES: 1) Effect of landing gear retraction on CG position is negligible.

2) Straight line variation between points given.

Datum Fuselage station 0, located 375 inches forward of weighing datum jig point.

Mean Aerodynamic Chord 99.43 inches (MAC leading edge at fuselage sta. 494.793) (MAC)

Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718.75.

Maximum Weights		<u>lb.</u>	<u>lb.</u>	<u>lb.</u>	<u>lb.</u>	<u>lb.</u>	lb.
	Ramp	47700	51250	51250	53250	53250	53250
	Takeoff	47450	51000	51000	53000	53000	53000
	Landing	44700	46750	47000	46750	47000	47000
	Zero Fuel	42200	44000	44000	44000	44000	39500
	Minimum flight	30000	30000	30000	30000	30000	30000

weight

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations (refer to Airplane Flight Manual).

Minimum Crew Two (Pilot and Co-pilot)

Maximum Occupants Series 100 Fifty-five (55) (including 50 passengers, 4 crew, and 1 flight observer) Series 440- Forty-Nine (49) (including 44 passengers, 4 crew, 1 flight observer)

OT COO ADIO C. A. O. C. C. C.

#### <u>CL-600-2B19 Green Aircraft Configuration</u> Refer to Note 5.

	Loa	<u>d *</u>	Weight *		
Fuel Capacity (usable)	U.S. Gal.	Imp. Gal.	Kg.	<u>lb.</u>	
2 main tanks (each)	700.0	582.8	2159	4760	
Center Tank	735.0	612.0	2267	4998	
Total	2135.0	1669.6	6585	14518	

<sup>\*</sup> Pressure refueling (based on 0.8028 kg/L)

Oil Capacity	Lo	<u>ad</u>	<u>Weight</u>	
	U.S. Gal.	Imp. Gal.	<u>kg.</u>	<u>lb.</u>
2 Engines (each)	1.70	1.42	5.94	13.09
Total	3.40	2.84	11.88	26.18
Usable				
2 Engines (each)	1.38	1.14	4.80	10.59
Total	2.76	2.29	9.60	21.18
		TP 1 00		10000 0
Maximum Operating		Take off and	_	10000 ft.
Altitude		En route:	•	41000 ft.
Control Surface Movements	Rudder		33° Left*	229 Diah+*
Control Surface Movements		.1 C4.1.:1:		33° Right* -13° LE Down
		al Stabilizer	2° LE Up	
	Aileron		25° Up	21.3° Down
	Elevator	.1	23.6° Up	18.4° Down
	Flight Sp		50° Up	
	Ground S		45° Up 50° Up	
		Spoileron		1
	Flap – Inl			45.09° Down
		ıtboard		41.58° Down
*Rudder deflections of 33° left				
*Rudder deflections of 25° left	and 25° right	apply when option	al CF-34-3B1 e	ngines are installed
Serial Numbers Eligible	7001 and	subsequent		

Engines Two General Electric CF-34-8C1

Fuel	Type	Specifications Canada	U.S.A.	U.K.	Roumanian
	Jet A Jet A-1	CAN2-3.23 CAN2-3.23	ASTM D1655 ASTM D1655	D. Eng RD2494 D. Eng RD2494	STAS 5639/88TH
	Grade JP-5 Grade JP-8		MIL-T-5624 MIL-T-83133	D. Eng RD2452 D. Eng RD2453	

†Fuel Additives Restricted to those listed in AFM (CSP-B-012) (Limitations, Fuel Additives) and/or antistatic STADIS-450 (max. 3ppm).

Note: CL-600-2C10

JP4 and Jet B not applicable to CL-600-2C10

Oil Engine, APU and IDG:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. \* Mixing of different types of oils is prohibited.

V - Model CL-600-2C10 (Transport Category), Approved February 16, 2001, by the FAA and December 22, 2000 by Transport Canada.

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Engine Limits Conditions	Refer	to Limits Ta	able in the	AFM (CSP B	-012)		
0.11.77						°C	°F
Oil Temperature		Maximum Permissible (15 minutes Maximum):				+163	325
		Maximum Continuous Minimum for Starting				+155	311
	Minii	mum for Stai	rting			-40	-40
Oil Pressure	Maxi	mum Transi	ent (after c	old start)			(130 psi at idle, 10 maximum)*
	Mavi	mum Contin	110116			45-116	
		off Power	iuous			45-116	
		ly State Idle					minimum
			main at idle	e until oil pres	sure returns to		
APU	ALLI	ED SIGNAI	L RE220 (	RJ)			
APU Limits		mum RPM:	E 11220 (	106%			
	Maxi	mum EGT:		°C	°F		
		Starting		692-1038	1274-1900*		
		Running-Gr	round	789	1452		
		Running-Fli		806	1482		
	* [				ture. Refer to A	AFM (CSI	P B-012)
				er any operati		`	,
		Refer to AFM			C		
Airspeed Limits	Vmo and Mmo (max	vimum onare	atina)		m.p.h.	knots	Mach
Anspeed Linits	Sea Level to 8000 ft		atilig)		380	330	-
	8000 ft. to 25400 ft.				386	335	- -
	25400 ft. to 28300 ft				-	-	0.80
	28300 ft. to 31400 f				362	315	0.60
	31400 ft. to 41000 f				-	-	0.85
	Vfe (Flaps Extended			1	265	230	0.63
	vie (Flaps Extended	1)		8	265	230	
				20	265	230	-
				30	213	185	_
				45	196	170	_
	Va (maneuvering)			73	170	170	-
	(See AFM for variat	ion of Va w	ith altitude	and aircraft v	veight).		
	VLO (Landing Gear	Operation)			253	220	*
	THE A II C	<b>D</b> . 1.10			230	200	**
	VLE (Landing Gear				253	220	-
	* extending , **	retracting					
C.G. Range:-	Refer to AFM (CSP I	B-012) for de	etail CG lii	mits.			
Datum	Fuselage station 0, lo	cated 144.0	inches for	ward of aircrat	ft nose		
Mean Aerodynamic Chord	133.185 inches (MAC	C leading edg	ge at fusela	nge sta. 743.1)	1		
(MAC)							
Leveling Means	Target plate and plum	nb bob brack Type	et within r	ear fuselage, a	nt fuselage station	on 1145.7	5
Maximum Weights		Spec.	Option				
9		lb.	lb.				
	Ramp	73000	75250				
	Takeoff	72750	75000				
	Landing	67000	67000				
	Zero Fuel	62300	62300				
	Minimum flight	42000	42000				
	weight						

weight

NOTE:	The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.					
Minimum Crew	Two (Pilot and Co-pilot)					
Maximum Occupants	Series 700 – 68 or less passengers Series 701 – 70 passengers Plus 5 crew-members (Pilot, Copilot, Observer forward and Aft Flight attendants)					
	Load *			Weight *		
Fuel Capacity (usable)	U.S. Gal.	Imp	. Gal.	Kg.	1b.	
2 main tanks (each)	1110	924	.1	3399	7493	
Center Tank	683	568	.6	2091	4610	
Total	2903	241	6.7	8889	19596	
* Pressure refueling (based o	n 0.809 kg	g/L) (6.75 lb.	U.S. Gal.)			
Oil Capacity	Loa			Weight		
		. Gal.	Imp. Gal.	Kg.	lb.	
2 Engines (each)	2.6		2.2	9.6	21.2	
Total	5.22	2	4.4	19.2	42.4	
Maximum Operating	Tak	e off and lar	nding:	8000 ft.		
Altitude		route	C	41000 ft.		
	:					
Control Surface Movements		lder		33° Left	33° Right	
	Stal	bilizer		2.0° LE Up	13.0° LE Down	
	Aile	eron		25.1° Up	21.3° Down	
	Ele	vator		23.6° Up	18.4° Down	
	Mu	lti-Function	Spoilers	48.0° Up		
		ound Spoiler	•	44.9° Up		
		p - Inboard		•	45.0° Down	
	,	- Outboard			41.6° Down	
	Slat	t			25.0° Down	
~						

# <u>VI – Model CL-600-2D24 (Transport Category), Approved October 25,-2002, by the FAA and September 9, 2002 by Transport Canada.</u>

Engines Two General Electric CF34-8C5 or

Serial Numbers Eligible

optional CF34-8C5A1 TC No. E00063EN

10002 and subsequent

Fuel	Type	Specifications Canada	U.S.A.	U.K.	Roumanian
	Jet A Jet A-1	CAN2-3.23 CAN2-3.23	ASTM D1655 ASTM D1655	D. Eng RD2494 D. Eng RD2494	STAS 5639/88TH
	Grade JP-5 Grade JP-8		MIL-T-5624 MIL-T-83133	D. Eng RD2452 D. Eng RD2453	

Oil Engine, APU and IDG:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. \*

\* Mixing of different types of oils is prohibited.

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Engine Limits Conditions	Refe	r to Limits Table in th	ne AFM (CSP C	-012)	0.0	O.F.
					°C	°F
Oil Temperature		imum Permissible (15	minutes Maxir	num):	+163 +155	325
	Max	Maximum Continuous				311
	Mini	Minimum for Starting				-40
Oil Pressure	Max	Maximum Transient (after cold start)				
	Mov	imum Continuous			minute:	/
					45-95 p	
		-off Power			45-95 p	
		ly State Idle	11 (11 11			minimum
	* En	gine must remain at io	ale until oil pres	sure returns to	normal o <sub>l</sub>	perating range.
APU	ALL	IED SIGNAL RE220	(RJ)			
APU Limits	Max	imum RPM:	106%			
	May	imum EGT:	°C	°F		
	Iviax		-	_		
		Starting	692-1038	1274-1900		
		Running-Ground*	789	1452		
		Running-Flight*	806	1482		
		Dependent upon altitu			AFM (CS	P C-012)
		Not to be exceeded ur Refer to AFM for deta		ng condition.		
	*** ]	Refer to AFM for deta	all limitations			
Airspeed Limits	Vmo and Mmo (ma	ximum operating)		m.p.h.	knots	Mach
•	Sea Level to 8000 f			380	330	-
	8000 ft. to 25400 ft			386	335	_
	25400 ft. to 28300 f			-	-	0.80
	28300 ft. to 31400 f			362	315	-
	31400 ft. to 41000 f			302	313	0.85
			1	265	220	0.83
	Vfe (Flaps Extende	a)	1	265	230	
			8	265	230	-
			20	253	220	-
			30	213	185	-
			45	196	170	-
	Va (maneuvering)					
	(See AFM for varia	tion of Va with altitud	de and aircraft v	veight).		
	VLO (Landing Gea	r Operation)		253	220	*
		1 /		230	200	**
	VLE (Landing Gear	r Extended)		253	220	_
	* extending , **					
C.C. D	D. C AFM (CCD	0.010) 6 1 1 11 00	4			
C.G. Range:-	Refer to AFM (CSP	C-012) for detail CG	limits.			
Datum	Fuselage station 0, lo	ocated 144.0 inches fo	orward of aircrat	ft nose		
	,					
Mean Aerodynamic Chord	133.185 inches (MA	C leading edge at fuse	elage sta. 833.1	inches)		
(MAC)						
Leveling Means	Target plate and plur	nb bob bracket within	rear fuselage, a	it fuselage stati	on 1146.7	75
Č			<i>2</i>	S		
		Type				
Maximum Weights		Spec. Option				
		lb. lb.				
	Ramp	80,750 82,750				
	Takeoff	80,500 82,500				
	Landing	73,500 73,500				
	Zero Fuel	70,000 70,000				
	Minimum flight	45,000 45,000				
	weight	45,000 45,000				

weight

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due

to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew Two (Pilot and Co-pilot)

Maximum Occupants 90 or less passengers

Plus 5 crew-members (Pilot, Copilot, Observer forward and Aft Flight attendants)

	Load *		Weight *	
Fuel Capacity (usable)	U.S. Gal.	Imp. Gal.	Kg.	lb.
ruer capacity (usable)	O.S. Gai.	Imp. Gai.	Ng.	10.
2in taules (la)	1110	024.1	2200	7402
2 main tanks (each)	1110	924.1	3398	7492
Center Tank	683	568.6	2091	4610
Total	2903	2416.7	8888	19595
* Pressure refueling (based o	on 0.809 kg/L) (6.	75 lb/U.S. Gal.)		
Oil Capacity	Load		Weight	
on cupucity	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	7.2	6.0	6.6	14.6
<b>U</b> ( )	14.4	12.0	13.2	29.2
Total	14.4	12.0	13.2	29.2
Maximum Operating	Take off a	nd landing:	8,000 ft.	
Altitude	En route:		41,000 ft.	
Titttado	En route.		11,000 10.	
Control Surface Movements	Rudder		33° Left	33° Right
	Horizontal			<u> </u>
	Stabilizer		2.0° LE Up	13.0° LE Down
	Aileron		25.1° Up	21.3° Down
	Elevator		23.6° Up	18.4° Down
		ation Spailars		10.7 DOWII
		ction Spoilers	48.0° Up	
	Ground Sp		44.9° Up	
	Flap – Inb	oard		45.0° Down

Serial Numbers Eligible

15001 and subsequent

Outboard

Slat

Service Information:

Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

41.6° Down 25.0° Down

#### **Data Pertinent to all Models**

## Approved Publications

## Model CL-600-1A11

- (a) Airplane Flight Manual, Canadair Publication RAG-600-101, Issue 2 (PSP 600 (U.S.) FAA, and PSP 600-1 (U.S.) for the appropriate configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-600-105, and later approved revisions.

## Model CL-600-2A12

- (a) Airplane Flight Manual, Canadair Publication PSP 601-1A, PSP 601-1A-1, PSP 601-1B and PSP 601-1B-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601-105, and later approved revisions.

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#### Model CL-600-2B16

- (a) Airplane Flight Manual, Canadair Publication PSP 601A-1, PSP 601A-1-1 and PSP 604-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601A-105 (3A & 3R Variants) and RAL-604-0001 (604 Variant), and later approved revisions.

## Model CL-600-2B19

- (a) Airplane Flight Manual, Canadair Publication CSP A-012 for the appropriate weight configuration and approved revisions.
- (b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP A-053, Part 2 and subsequent approved revisions.
- (c) Structural Repair Manual (SRM), Canadair Publication CSP A-008 and subsequent approved issues.
- (d) Certification Maintenance Tasks, Canadair Regional Jet, Model CL-600-2B19 Engineering Report No. RBR-601R-167, as contained in Part 2 to the Maintenance Requirements Manual (MRM), Canadair Publication CSP A-053, and subsequent approved revisions.

## Model CL-600-2C10

- (a) Airplane Flight Manual, Canadair Publication CSP B-012 for the appropriate weight configuration and approved revisions.
- (b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I and subsequent approved revisions.
- (c) Structural Repair Manual (SRM), Canadair Publication CSP B-008 and subsequent approved issues.
- (d) Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II and subsequent approved revisions.

#### Model CL-600-2D24

- (a) Airplane Flight Manual, Canadair Publication CSP C-012 for the appropriate weight configuration and approved revisions.
- (b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I and subsequent approved revisions.
- (c) Structural Repair Manual (SRM), Canadair Publication CSP B-008 and subsequent approved issues.
- (d) Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II and subsequent approved revisions.

Import Eligibility

A U.S. Airworthiness Certificate may be issued on the basis of the Canadian Department of Transport "Certificate of Airworthiness for Export" signed by the Minister of Transport. This form must contain the following statement:

#### a) Model CL-600-1A11

"This certificates that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131, as modified by Drawing List, Canadair Publication RAL-600-105, and later approved revisions (FAA Type Certificate No. A21EA)".

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#### b) Model CL-600-2A12

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601-105, and later approved revisions (FAA Type Certificate No. A21EA)".

#### c) Model CL-600-2B16 (3A & 3R Variants)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601A-105 and later approved revisions (FAA Type Certificate No. A21EA)".

### Model CL-600-2B16 (604 Variant)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-604-0001 and later approved revisions (FAA Type Certificate No. A21EA)".

#### d) Model CL-600-2B19

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-131 and includes the minimum type design defined in document RAZ-601R-111 as being required to comply with the basis for the FAA Type Certificate No. A21EA".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2B19 airplane is defined in the document RAL-601R-XXXX. (XXXX represents the Serial Number for the airplane concerned).

#### Model CL-600-2B19 Green Configuration

For CL-600-2B19 Green Configuration and associated modifications refer to NOTE 4.

#### e) Model CL-600-2C10

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-131 and includes the minimum type design defined in document RAL-670-0001 and RAL-670-0002 as being required to comply with the basis for the FAA Type Certificate No. A21EA".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2C10 airplane is defined in the document RAL-670-XXXX. (XXXX represents the Serial Number for the airplane concerned).

### f) Model CL-600-2D24

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-131 and includes the minimum type design defined in document RAZ-BA690-129 as being required to comply with the basis for the FAA Type Certificate No. A21EA".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2D24 airplane is defined in the document RAL-690-XXXX. (XXXX represents the Serial Number for the airplane concerned).

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#### Certification Basis

#### Model CL-600-1A11, CL-600-2A12, and CL-600-2B16 (3A & 3R Variants)

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-37, plus FARs 25.675(a), 25.685(a), 25.733(c), 25.775(e), 25.787(c), 25.815, 25.841(b), 25.951(a), 25.979(d) and (e), 25.1041, 25.1143(e), 25.1303(a), 25.1322, 25.1385(c), 25.1587(b), 25.1583(a), of Amendment 25-38; FARs 25.901(b) and (c), 25.903(c) and (e), 25.933(a), 25.943, 25.959, 25.1091(a) and (d), 25.1145(c), 25.1199(b) and (c), 25.1207, 25.1549, 25.1585(a)(9) of Amendment 25-40; and FAR 25.1309 of Amendment 25-41; FAR 25.1353(c) of Amendment 25-42; FAR's 25.571 and 25.629(d)(4) (v) of Amendment 25-45; FARs 25.351 and 25.603 of Amendment

#### Model CL-600-2B16 (604 Variant)

25-46.

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-78 with the following exceptions: FAR Part 25 at Amendment 25-37 for paragraphs: 109, 149, 365, 561, 625, 701, 772, 783 (except 783(f)), 785 (except 785(g)), 789, 791, 801, 803, 807, 809, 811, 812, 813, 831, 853, 855, 857, 1307, 1359, 1415, & 1419; FAR Part 25 at Amendment 25-37 for existing installations and Amendment 25-78 for new installations for paragraphs: 963, 965, 994, 997, and 1438; FAR Part 25 at Amendment 25-38 for paragraphs 787 and 1439; FAR Part 25 at Amendment 25-40 for paragraph 25.973; FAR Part 25 at Amendment 25-37 for paragraph 25.109 (see note 7); FAR Part 25 at Amendment 25-44 for paragraph 25.1413; FAR Part 25 at Amendment 25-54 for paragraph 851; FAR Part 25 at Amendment 25-80 for paragraph 1316. New FAR Part 25 requirements 562, 810, 819, 832, 858, 869, (a) & (b), 1421, 1423 and 1450 are not part of the certification basis.

#### Model CL-600-2B19

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-62 with the following exceptions; FAR 25.109 at Amendment 25-41, FAR 25.832 not included, FAR 25.1401 at Amendment 25-40, FAR 25.1438 not included and FAR 25.783(f) at Amendment 25-23 for the cargo compartment door, the main avionics compartment door and the service/emergency door. FAR 25.773(b)(2) and 25.785(h) at Amendment 25-72. Model CL-600-2C10

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-86 with the following exceptions; FAR 25.783(f) at Amendment 25-23 for the cargo compartment door, the main avionics compartment door and the service/emergency door. FAR 25.571 at Amendment 25-96 and FAR 25.493 at Amendment 25.97.

### Model CL-600-2D24

14 CFR Part 25, including Amendments 25-1 through 25-86, Amendments 25-88 through Amendments 25-90, and Amendments 25-92 through 25-98 with the following exceptions: (a) FAR 25.783(f) at Amendment 25-23 shall replace FAR 25.783(f) at Amendment 25-88 for the Aft Cargo Compartment and Main Avionics Bay Doors only (common doors with CL-600-2C10 (CRJ-700); (b) FAR 25.807(d)(6) at Amendment 25-72 shall replace FAR 25.807(h) at Amendment 25-94; (c) Plus FAR 25.365, FAR 25.831(a) and FAR 25.1447(c) at Amendment 25-87. FAR 25 Amendment 25-91 is not included in Type Certification Basis.

Additional FAA Requirements

#### (a) Model CL-600-1A11

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendment 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions No. 25-94-EA-12 dated March 26, 1980, (FAA Docket No. 16921) and Amendment No. 1 dated September 11, 1981.

Date of application for Type Certificate August 3, 1976. Type Certificate A21EA issued November 7, 1980.

#### (b) Model CL-600-2A12

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions No. 25-ANM-1 dated March 8, 1983.

Date of application for amendment to Type Certificate May 1, 1981. Type Certificate A21EA amended March 11, 1983.

#### (c) Model CL-600-2B16 (3A & 3R Variants)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions No. 25-ANM-1 dated March 8, 1983.

Date of application for amendment to Type Certificate March 3, 1986. Type Certificate A21EA amended April 30, 1987.

## (d) Model CL-600-2B16 (604 Variant)

- FAR Part 36 dated December 1, 1969, as amended through Amendments 36-20 inclusive.
- (2) FAR Part 34 dated August 25, 1990 as amended through Amendment 34-1.
- (3) Special Conditions No. 25-ANM-109 dated October 31, 1995 (HIRF).

Date of application for Change to Type Design June 14, 1993.

Change to Type Design approved November 2, 1995.

#### (e) Model CL-600-2B19

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-18 inclusive.
- (2) Applicable portions of FAR 34 (previously codified as SFAR 27).
- (3) Special Conditions No. 25-ANM-61 dated July 22, 1992.

Date of application for amendment to Type Certificate May 26, 1988.

Type Certificate A21EA amended January 21, 1993.

#### (f) Model CL-600-2C10

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-22 inclusive.
- (2) Applicable portions of FAR 34
- (3) Special Conditions:
  - High intensity radiated fields
  - Go-around performance credit for use of automatic power reserve (APR)

Date of application for amendment to Type Certificate May 6, 1996 Type Certificate A21EA amended February 16, 2001.

#### (g) Model CL-600-2D24

- (1) 14 CFR Part 36 effective September 10, 1990, and including all amendments effective on the date of Type Certification.
- (2) 14 CFR Part 34, effective September 10, 1990, and including all amendments effective on the date of Type Certification.
- (3) Special Conditions:
  - High Intensity Radiated Fields, No. 25-ANM-109
  - Go-around performance credit for use of automatic power reserve (APR)
     No. 25-167-SC (same as CL-600-2C10)
  - Sudden Engine Stoppage, No. 25-217-SC
- (4) Exemption

Exemption No. 7447 Hydraulic Systems Testing for FAR 25.1435(b)(1)

Date of application for amendment to Type Certificate November 1, 1999.

Type Certificate A21EA amended October 31, 2002.

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#### Equivalent safety has been established for the following requirements:

- (a) <u>CL-600-1A11, CL-600-2A12, and CL-600-2B16.</u>
  - (1) FAR 25.773(b)(2) DV Window
  - (2) 25.955(a)(4) Blocked Flow Meter Fuel Flow Requirements
  - (3) FAR 25.201 Stall Determination

#### (b) <u>CL-600-2B16 (604 Variant)</u>

- (1) FAR 25.955 (a)(4) Blocked Flow Meter Fuel Flow Requirements
- (2) Several FAR's for the use of Reduced Minimum Operating Speed Factors

#### (c) CL-600-2B19

- (1) FAR 25.811(d)(2) Emergency Exit Marking Sign
- (2) FAR 25.813(c)(1) Access to Type III exit-seat cushion intrusion
- (3) Several FAR's for the use of 1-g Stall Speed (nonstructural items)
- (4) FAR 25.621 (c)(2) Overwing Emergency Exit Door Critical Castings, P/N 601R38685-1, (documented in Transport Airplane Directorate ELOS Memo TD3995NY-T-A-1)

## (d) CL-600-1A11, CL-600-2A12, and CL-600-2B16

- (1) Ditching provisions of FAR 25.801
- (2) Ice Protection of FAR 25.1419

## (e) <u>CL-600-2C</u>10

- (1) FAR 25.103 and others Reduced Minimum Operating Speed Factors
- (2) FAR 25.107(e)(1)(iv) Vlof and Vmu
- (3) FAR 25.109 Rejected Takeoff and Landing Performance Criteria
- (4) FAR 25.811(d)(2) Main Door Exit Marking Sign
- (5) FAR 25.813(c)(2)(i) Emergency Exit Access
- (6) FAR 25.904 Performance Credit for Use of APR During Reduced Thrust Takeoff
- (6) FAR 25.933(a)(1)(ii) Thrust Reverser System
- (7) FAR 25 App. I 25.5(b)(4) Lack of On/Off Switch for Automatic Takeoff Thrust Control System (ATTCS)

#### CL-600-2D24

- (1) FAR 25.103 and others Reduced Minimum Operating Speed Factors
- (2) FAR 25.811(d)(2) Main Door Exit Marking Sign
- (3) FAR 25.813(c)(2)(i) Emergency Exit Access
- (4) FAR 25.904 Performance Credit for Use of APR During Reduced Thrust Takeoff
- (5) FAR 25.933(a)(1)(ii) Thrust Reverser System
- (6) FAR 25 App. I 25.5(b)(4) Lack of On/Off Switch for Automatic Takeoff Thrust Control System (ATTCS)

Compliance with the following optional requirements has been established for the CL-600-2B16 (604 Variant):

- (1) Ditching provisions of FAR 25.801
- (2) Ice Protection of FAR 25.1419

Compliance with the following optional requirements has been established for the CL-600-2B19, CL-600-2C10 and CL-600-2D24:

- (1) Ice Protection of FAR 25.1419
- (2) Ditching provisions of FAR 25.801 when the safety equipment requirements of FAR 25.1411 and the ditching equipment requirements of FAR 25.1415 are satisfied.

The basic equipment as prescribed in the applicable airworthiness requirements (See Certification Basis) must be installed in the aircraft for certification.

Equipment

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NOTE 1

This Aircraft Type Certificate Data Sheet defines a configuration which does not include passenger provision for the CL-600-1A11, CL-600-2A12, and CL-600-2B16 models. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated.

(a) Current weight and balance report including the list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

## (b) Model CL-600-1A11, CL-600-2A12, and CL-600-2B16

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tanks to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" for the following Challenger variants is:

 Model:
 Total Unusable (system fuel)

 CL-600-1A11, 2A12
 16.0 gal. total, 109 lb., (+500.00)

 CL-600-2B16 (CL-601A)
 17.5 gal. total, 119 lb., (+524.80)

 CL-600-2B16 (CL-604 Variant)
 19.0 gal. total, 129 lb., (+536.60)

#### Model CL-600-2B19

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" is 14.5 U.S. Gal., 97 lb. (+494.3).

#### Model CL-600-2C10 and CL-600-2D24

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" is 23.1 U.S. Gal., 155.9 lb. (+722.0).

## (c) Model CL-600-1A11

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

7.38 U.S. gal. (total) 56.8 lb., (+623)

#### Model CL-600-2A12 and CL-600-2B16

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

6.1 U.S. gal. (total) 47 lb., (+680.5)

## Model CL-600-2B19

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

5.83 U.S. gal. (total) 47 lb., (+785.67)

#### Model CL-600-2C10 and CL-600-2D24

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

5.2 U.S. gal. (total) 42.4 lb., (+1072.3)

#### (d) Model CL-600-1A11

Aircraft which incorporate Canadair Limited Modification Summaries:

- 1) 600-556 Modified main landing gear wheel,
- 2) 600-592 Modified main landing gear sidestay,
- 3) 600-1933 Revised airspeed limitation placard.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 through 1037):

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Maximum Weight	<u>lb.</u>
Ramp	38650
Takeoff	38500
Landing	32500
Zero Fuel	28500

## <u>Maximum Occupants</u> Twenty-two (includes crew)

C.G. Range Weight, lb.	Forward Limit <u>% MAC (Sta.)</u>	Aft Limit <u>% MAC (Sta.)</u>
24000 to 38650	16 % (+502.848)	
38650		28% (+513.965)
25800		33% (+518.598)
24000		33% (+518.598)
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Straight line variation between points given.

#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 40000 ft.

41000 ft. with Canadair Limited

Modification Summaries 600-1923 & 600-8330 incorporated.

## Model CL-600-1A11

- (e) Aircraft which incorporate Canadair Limited Modification Summaries:
  - 1) 600-594 Landing gear for 40400 lb. takeoff weight aircraft,
  - 2) 600-616 Wheels and brakes for the 40400 lb. takeoff weight aircraft,
  - 3) 600-643 Structural reinforcement at wing B.L. O rib,
  - 4) 600-752 Modified anti-skid unit,
  - 600-817 Stall protection system computer for the 40400 lb. takeoff weight aircraft,
  - 6) 600-8150 Placard for the 40400 lb. takeoff weight aircraft,
  - 600-760 Drop down passenger door-production improvement (required only on S/N 1024 & subsequent).

may be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent):

Maximum Weight	<u>lb.</u>
Ramp	40550
Takeoff	40400
Landing	36000
Zero fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew)

## C.G. Range (Aircraft without Canadair Modification Summary 600-8265)

Weight <u>lb.</u>	Forward Limit <u>% MAC (Sta.)</u>	Aft Limit <u>% MAC (Sta.)</u>
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	_	33% (+518.598)

Straight line variation between points given.

C.G. Range (Aircraft with Canadair Modification Summa	ary 600-8265 Incorporated)
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Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	33% (+520.450)

Straight line variation between points given.

#### Maximum Operating Altitude

Takeoff and landing	10000 ft.
En route	40000 ft.

41000 ft. with Canadair Modification

Summaries 600-1923 & 600-

8330 incorporated

## Model CL-600-1A11

## (f) Airspeed Limits (CAS)

Aircraft which, in addition to the Canadair Modification Summaries essential for operation at a maximum takeoff weight of 40400 lb., also incorporate the following Canadair Modification Summary:

 600-665 Revised Vmo/Mmo outputs of ADC and limitations placard may be operated at the following limitations:

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<u>Knots</u>	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted unless the following additional Canadair Modification Summaries are incorporated:

- 1) 600-512 Prevention of spoiler asymmetry
- 2) 600-809 Dormant failure protection of the flight spoiler detent
- 3) 600-8212 Hydraulic pipe routing to suit spoiler detent mechanism.

#### Model CL-600-1A11

- (g) Aircraft Serial Numbers 1086 and subsequent and aircraft incorporated the following:
  - 1) Either
    - a) Canadair Service Bulletin
       600-0378 Modification Stall Protection System Stall Strip Removal and Altitude Compensation
  - or b) Supplementary Type Certificate SA99NE Wing Stall Strip Removed.
    - 2) Canadair Service Bulletin

600-0379 – Modification - Tires and Airspeed Limitation Placards - 41100 Pounds Takeoff Weight.

may be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent)

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Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

# C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and subsequent and Aircraft incorporating Canadair Service Bulletin 600-0221

Weight	Forward Limit	Aft Limit
lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)
04 1 1 1 1 1 1		

Straight line variation between points given.

## C.G. Range (Other Aircraft)

Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

## Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<b>Knots</b>	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.80 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

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## Model CL-600-1A11

- (h) Aircraft incorporating the following Canadair Service Bulletins
  - a) 600-0350 Modification Engine Speed Indicating- N<sub>1</sub> Fan Speed Indicator
  - 600-0379 Modification Tires and Airspeed Limitation Placards 41100 lb. Takeoff Weight.
  - c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

or 600-0380 Modification - Nose Gear - Steer by Wire.

may be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero Fuel	28500

<u>MaximumOccupants</u> Twenty-two (includes crew).

## C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft

Incorporating Canadair Service Bulletin 600-0221

Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

## C.G. Range (Other Aircraft)

Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

## Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

Airspeed Limits (CAS)	<u>m.p.h.</u>	<u>Knots</u>	Mach.
Vmo and Mmo (maximum operating)			
Sea level to 10000 feet	345	300	-
10000 ft. to 21420 ft.	420	365	-
21420 ft. to 25740 ft.	-	-	0.79
25740 ft. to 28640 ft.	385	335	-
above 28640 ft.	-	-	0.835

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#### Vfe (Flaps extended)

20°	265	230
30°	226	196
45°	215	187

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

#### Model CL-600-1A11

- (i) Aircraft incorporating the following Canadair Service Bulletins
  - a) 600-0350 Modification Engine Speed Indicating- N<sub>1</sub> Fan Speed Indicator
  - b) 600-0446 Modification Placard-41250 lb. Take-off Weight (Aircraft with Winglets).
  - c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

or 600-0380 Modification - Nose Gear - Steer by Wire.

may be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41400
Takeoff	41250
Landing	36000
Zero Fuel	28500

<u>Maximum</u> Twenty-two (includes crew).

Occupants

## C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft Incorporating Canadair Service Bulletin 600-0221

Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
24000 to 41400	16% (+502.848)	-
41400	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

#### C.G. Range (Other Aircraft)

Weight <u>lb.</u>	Forward Limit % MAC (Sta.)	Aft Limit % MAC (Sta.)
		-
24000 to 41400	16% (+502.848)	-
41400	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)
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Straight line variation between points given.

## Maximum Operating Altitude

Takeoff and landing	10000 ft.
En route	41000 ft.

Airspeed Limits (CAS)		<u>m.p.h.</u>	Knots	Mach.
Vmo and Mmo (maximum operating)				
Sea level to 10000 feet		345	300	-
10000 ft. to 21420 ft.		420	365	-
21420 ft. to 25740 ft.		-	-	0.79
25740 ft. to 28640 ft.		385	335	-
above 28640 ft.		-	-	0.835
Vfe (Flaps extended)				
	20°	265	230	
	30°	226	196	
	45°	215	187	

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

#### Model CL-600-2A12

Aircraft Serial Numbers 3018 and subsequent and aircraft incorporating the following Canadair Service Bulletin 601-0032 - Modification - Tires and Airspeed Limitation Placards 43100 lb. Takeoff Weight may be operated to the following limitations (eligible Serial Numbers 1003, 3001 and subsequent)

Maximum Weight	<u>lb.</u>
Ramp	43250
Takeoff	43100

Maximum Occupants Twenty-two (includes crew).

#### C.G. Range

Weight	Forward Limit	Aft Limit
<u>lb.</u>	% MAC (Sta.)	% MAC (Sta.)
25000 to 43250	16% (+502.848)	
43250		30% (+515.818)
31000		35% (+520.450)
25000		35% (+520.450)

Straight line variation between points given.

#### Model CL-600-1A11

All placards must be installed in accordance with Canadair Limited Drawings: 600-40402, 600-40452, 600-51000, 600-51002, 600-51004

## Model CL-600-2A12

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 600-51000, 600-51002, 601-51004.

#### Model CL-600-2B16

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 601A51000, 601A51002, 601A51004.(3A & 3R Variants) 601-40402, 601-40452 & 604-51000 (604 Variant)

### Model CL-600-2B19

All placards must be installed in accordance with Canadair Limited Drawings: 601R47600, 601R47602, 601R47700.

Note: Customized markings and placards drawings are not included.

NOTE: 2

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#### Model CL-600-2C10

All placards must be installed in accordance with Canadair Limited Drawings: BA670-47501, BA670-47506, BA670-47800. Self Illuminated Signs and Electrical Signs must be installed in accordance with BA670-47802 and BA670-47803.

Note: Customized markings and placards drawings are not included. Drawings noted above are for basic type certification only. For as-delivered aircraft configurations, refer to customer options listed in RAL-670-300.

#### Model CL-600-2D24

All placards must be installed in accordance with the Bombaredier Aerospace Drawings: BA690-47500, BA690-47506, BA690-47804. Self illuminated Signs and Electrical Signs must be installed in accordance with BA690-47805 and BA690-47806.

Drawings noted above are for basic type certification only. For as- delivered aircraft configurations, refer to RAL-690-xxxxx (xxxxx denotes the serial number for the aircraft concerned).

#### NOTE: 3

## Model CL-600-1A11

The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 605. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 602 and Job Inspection Card Manual PSP 622, NDT-612 contain all information essential for proper maintenance.

#### Model CL-600-2A12

The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 601-5. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 601-2 and Job Inspection Card Manual PSP 601-22, NDT-612 contain all information essential for proper maintenance.

## Model CL-600-2B16

The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 601A-5 (3A & 3R Variants) and PSP 604-5 (604 Variant). These limitations may not be changed without FAA Engineering approval. This document and Canadair Maintenance Manual, PSP 601-2 (3A & 3R Variants) and PSP 604-2 (604 Variant), and/or Job Inspection Card Manuals PSP601A-22 (3A) and/or PSP 601R-22 (3R), PSP604-22 (CL604), NDT604-12 contain all information essential for proper maintenance.

#### Model CL-600-2B19

The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Canadair Program Document CSP A-053, Part 2. These limitations may not be changed without FAA Engineering approval.

#### Model CL-600-2C10

The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Canadair Program Document CSP B-053, Part 2. These limitations may not be changed without FAA Engineering approval.

## Model CL-600-2D24

The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Aerospace Program Document CSP B-053, Part 2. These limitations may not be changed without FAA Engineering approval.

#### NOTE 4:

#### Model CL-600-2B19

Major modifications which define the aircraft as the "Green Configuration" are recorded in document RAZ-601R-110 (Definition of RJ type design for Transport Canada approval), as Appendix 2 to that document.

NOTE 5: <u>Model CL-600-2B19</u>

The green aircraft type design does not include passenger provisions. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated in accordance with the Type Approval Basis.

Aircraft delivered in the "Green Configuration" and incorporating Mod. Summary TC60255 (Blocking of Emergency Exits) are limited to carrying a maximum of twenty-two (22) occupants including the crew and no more than 19 passengers in accordance with FAR 25 requirements.

NOTE 6: Model CL-600-2B19

For all weather flight capability the Regional Jet aircraft is certified to operate in CAT II conditions, except when the aircraft is installed with the HGS system (TC 601R60262), in which case the aircraft is certified to operate in CAT IIIa conditions.

NOTE 7: Model Cl-600-2B16 (CL-604 Variant)

The following additional requirements must be included with FAR 25.109 at Amendment 25-37:

- 1. Airplane Flight Manual information, in the form of guidance material, must be provided for supplementary operating procedures and performance information for operating on wet and contaminated runways.
- The accelerate-stop distance and landing distance must be determined using the braking performance which is obtained with the brake conditions that are expected in service.

NOTE 8 CL-600-2D24

Compliance with SFAR 88 "Fuel Tank Safety – Ignition Prevention" is not required for 18 months following Type Certification in Canada. Based on September 9, 2002 Transport Canada Certification the following SFAR 88 activities will be completed by March 9, 2004

Item (1) Safety review of CRJ-900 fuel tank system.

Item (2) Identification of all design changes required to meet these requirements.

Item (3) Submission of all required compliance substantiation, including maintenance and inspection requirements.

...END...